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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,323	10/06/2000	Kinya Odagiri	0675-31	9127
31780	7590	05/25/2004	EXAMINER	
ERIC ROBINSON			TAMAI, KARL I	
PMB 955			ART UNIT	PAPER NUMBER
21010 SOUTHBANK ST.				2834
POTOMAC FALLS, VA 20165			DATE MAILED: 05/25/2004	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Applicant No.</b>	<b>Applicant(s)</b>
	09/680,323	ODAGIRI ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Tamai IE Karl	2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 06 April 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1, 3/1, 4, 6/3/1, and 7/4 is/are rejected.
- 7) Claim(s) 2, 3/2, 5, 6/3/2, 7/5 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 06 May 2002 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      - Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      - Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Election/Restrictions***

1. Newly submitted claims 8-11 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the particulars of the subcombination, that being the blade portions adapted to move air in substantially axial and radial direction is not included in the combination and has separate utility as a ventilation fan or a circulation for circulating air in a motor/generator.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 8-11 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang (US 5,583,746) and Horng (6132170). Wang teaches a thin motor characterized by having a heat plate 10 supporting the rotor fan 40 in a central portion thereof and whose contact surface matches the item to be cooled 50. The fan having blades with a gentle arc(see figure 2). The heat plate including the stator and the heat plurality of radiator

Art Unit: 2834

plates are secured together by diagonally opposed bolts 14, 15. Wang does not teach the fan having a two step inverted saucer shape, a raised central portion of the heat plate, a stator coil substrate, and the rotor blades pushing air in the radial direction.

Hornig teaches a fan motor with a central raised portion to support the stator coil substrate 310 and shaft. Hornig (figs 10-12) teaches the rotor blades forcing the air in the radial direction of the Saito teaches a fan with an outer radial step 325 that extends near the heat radiator fins 32 and an inner radial fan 322 that mates around the lid 330. The rotor fan and the two step blades forming an inverted saucer over the stator. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the cooling device of Wang with the motor of Saito to improve the cooling effect of the fan.

4. Claims 3/1, 4, 6/3/1, and 7/4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang(US 5,583,746) and Horng (US 6132170), in further view of Saito(US 5,979,541). Wang and Horng teach every aspect of the invention except the spacers being heat conducting material, the heat plate being a material with excellent thermal conductivity(precious metal, copper) or partially diamond crystal, and the heat sink being aluminum or copper. Wang teaches spacers 20 between the fins 30, but does not specify the material of the spacers or the fins. Saito teaches the heat plate and fins being copper(col. 5, line 13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the cooling device of Wang and Horng with the spacers being a heat conducting material, with the heat plate

Art Unit: 2834

being copper, and the heat sink to be copper to allow the heat from the CPU to be drawn into the cooling fins 30 and dissipated in the air flow, as taught by Saito.

***Allowable Subject Matter***

5. Claim 2, 3/2, 5, 6/3/2, and 7/5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments with respect to the pending claim have been considered but are moot in view of the new grounds of rejection.

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***Conclusion***

7. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2834

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg, can be reached at (571) 272 - 2044. The facsimile number for the Group is (703) 872 - 9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai  
PRIMARY PATENT EXAMINER  
May 19, 2004



KARL TAMAI  
PRIMARY EXAMINER